

BIBLIOGRAPHICAL NOTICES.

Some Publications on American Carboniferous Echinoderms.

Geological Survey of Missouri. Bulletin no. 4. *A Description of some Lower Carboniferous Crinoids from Missouri.* By S. A. MILLER. Published by the Geological Survey. Jefferson City, February 1891.

Description of some new Genera and Species of Echinodermata from the Coal Measures and Subcarboniferous Rocks of Indiana, Missouri, and Iowa. By S. A. MILLER and WM. F. E. GURLEY. Published at Danville, Illinois, June 1890.

THAT energetic species-maker, Mr. S. A. Miller, of Cincinnati, has again been hard at work, and, either alone or in collaboration with Mr. Gurley, who has been an active collector for many years, has made himself responsible for six new genera and over ninety new species of Crinoids from the Lower Carboniferous rocks of the Mississippi Valley. Forty-two of these new species and one new genus are described from Missouri, twenty of them occurring in the Burlington Group, in which over three hundred and fifty species of Crinoids are already known. Fourteen of these twenty are referred to *Platycrinus*, of which genus some three dozen species had previously been described from the Burlington beds, and ten of the new ones are founded on single specimens! Considering the richness of the Crinoid fauna in the Burlington Limestone, one might naturally expect that the affinities of Miller's new species to those previously described would be indicated by their founder. But he seems to be almost entirely unacquainted with the first duty of a species-maker, and only gives this much-needed information about three species of *Platycrinus*, two of *Barycrinus*, and one of *Scaphiocrinus*, while the remaining thirty-five are described and nothing more.

The new genus *Missouricrinus* has a monocyclic basin-shaped calyx, with the anterior ray undivided and a single axillary in each of the others. The anal plate (Bather's brachianal) separates two radials and rests upon the truncated apex of a basal, just as in *Cyathocrinus*. According to the author "the affinities are nearest the Heterocrinidae; but I think a new family should be formed for it. Type *M. admonitus*."

This memoir is illustrated by five fairly good plates, though some of the figures would have gained in clearness had they been on a larger scale; and the explanations of plates iv. and v. would have been better arranged according to the numerical sequence of the figures, instead of beginning with fig. 7.

One more point is noteworthy. It is not many months since Mr. Miller thought fit to comment somewhat strongly on the "illiteracy" of the present writer, "for he even uses capital letters for specific names, or lower-case as it may be, showing his want of